



Department of Development Services

Building Division

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Highlighted excerpts are from the Building Administrative Code of Clark County.

SUBJECT: TG-15R-2009 RESIDENTIAL QUALITY SYSTEMS MANUAL

1.0 PURPOSE: BAC 22.02.530(A) Approval by the Building Official.

To perform residential or special inspections as set forth in the technical codes, a Quality Assurance Agency must be approved by the Building Official, who shall maintain a list of approved Quality Assurance Agencies.

The Building Official shall establish rules and regulations for approval and listing as well as for the conduct of any approved agency. Rules and regulations for the approval and listing requirements shall be contained in technical guidelines.

2.0 SCOPE: This guideline provides information for the preparation of a Quality Systems Manual.

3.0 ABBREVIATIONS & ACRONYMS:

BAC: Building Administrative Code of Clark County

CCDDS-BD: Clark County Department of Development Services-Building Division

NRS: Nevada Revised Statute

RIA: Residential Inspection Agency

QC: Quality Control

QSM: Quality Systems Manual

TG: Technical Guideline

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Revised By:	Concurred By:	Approved By:
 Brenden M. Scherr, P.E. Principal Engineer	 David L. Durkee, P.E. Principal Engineer	 Theodore L. Droessler, P.E. Manager Engineer

4.0 DEFINITIONS: For the purposes of this technical guideline, certain terms, phrases, words and their derivatives shall be construed as specified in this section and the Building Administrative Code of Clark County.

Quality Systems Manual: A quality systems manual is composed of a series of documents that contain policy statements, procedures, reporting requirements and personnel qualifications. The QSM defines the procedural responsibilities to ensure the operations are completed, reviewed and documented.

Retain: A method to allow residential inspection services by which an agency has obtained approval in accordance with the technical guidelines and maintained compliance to the “Contracting for Services” as allowed in section 22.02.145 of the Building Administrative Code of Clark County.

5.0 REFERENCES:

Title 22, Chapter 22.02: Building Administrative Code of Clark County

Title 22, Chapter 22.04 Southern Nevada Building Code Amendments

Technical Guideline 16R Residential Inspection Agency Obligations

Technical Guideline 17R Minimum Qualifications for Designated Residential Inspectors

Technical Guideline 100 Quality Assurance Agency Conflict of Interest Provisions

6.0 RESPONSIBILITIES:

6.1 BAC 22.02.530(A) Approval by the Building Official.

To perform residential or special inspections as set forth in the technical codes, a Quality Assurance Agency must be approved by the Building Official, who shall maintain a list of approved Quality Assurance Agencies.

6.2 BAC 22.02.530(B) Employment of Inspectors

The approved Quality Assurance Agency is responsible to employ only approved designated residential inspectors for residential inspection work and special inspectors for work requiring special inspection pursuant to the technical codes.

6.3 BAC 22.02.530(C) Quality Management:

The Quality Assurance Agency shall employ at all times a quality control manager to carry out supervision and technical responsibilities. The quality control manager shall possess appropriate education, certifications and experience. The Quality

Assurance Agency is responsible to notify the Building Official within 14 days of any changes in the designated quality control manager. Failure to do so shall result in the immediate forfeiture of its approval status.

The Quality Assurance Agency, through its quality control manager, is responsible to the Building Official for: hiring and training of qualified inspectors and testing technicians; supervision of inspectors; the filing of accurate and complete reports based upon actual inspection and testing results; in-house distribution and application of technical guidelines; and supervising and documenting the internal audit and in-house training program.

6.4 **BAC 22.02.530(D) Engineering Management**

The Prime Agency shall employ a Nevada licensed Professional Engineer or Registered Architect as an engineering manager, who shall be in responsible charge and accountable to the Building Official for technical processes used to verify compliance with approved construction documents and the technical codes. Failure to do so shall result in the immediate forfeiture of its approval status.

The Prime Agency, through its engineering manager, is responsible to the Building Official for: directing the operations of testing and inspections; certifying the inspection and testing process for all projects which require inspections; and supervision and performing a review that inspections are performed pursuant to the approved construction documents and the technical codes and within the scope of the permit; directing and reviewing the internal audit and in-house training program.

Additional responsibilities are contained in Technical Guideline 16R.

6.5 **BAC 22.20.385 Listing Fees:**

Fees are detailed in the Building Administrative Code of Clark County.

6.6 **BAC 22.02.506 Inspection Agencies**

The Building Official is authorized to accept reports of approved inspection agencies, provided such agencies satisfy the requirements as to qualifications, licensing and reliability.

BAC 22.02.506 (A) General.

A single-family residence classified for use as an IBC Group R-3 occupancy or an IRC Dwelling Unit and accessory structures to the residence located on the same property may have inspections performed by an approved Quality Assurance Agency, as directed by the Building Official.

Inspections of the residence and accessory structure(s) conducted by an approved Quality Assurance Agency shall be performed as provided in this Chapter. Methods for complying with the requirements shall be found in the technical guidelines.

BAC 22.02.506 (B) Inspections of a Single-Family Residence by an Approved Agency.

The owner or the design professional acting as the owner's agent shall employ an approved Quality Assurance Agency. The Agency shall provide inspections in accordance with this Chapter and the technical codes. No changes of the approved Agency shall be made without approval of the Building Official.

An owner shall select an approved Quality Assurance Agency to perform the inspections as specified in a Single Family Residence Inspection Agreement. This agreement shall be executed prior to permit issuance by the owner or owner's agent, the designated approved Agency and the Building Official.

6.7 Quality Systems Manual:

6.7.1 A QSM shall be prepared in accordance with Section 7.0.

6.7.2 The QSM shall be submitted to CCDDS-BD with the application form and required fees.

6.7.3 The QSM shall be approved in writing by a company officer, quality control manager and the engineering manager.

7.0 PROCEDURE: Each agency seeking approval status shall apply for approval using forms available for that purpose. Forms are available from Clark County Department of Development Services – Building Division at 4701 W. Russell Rd., Las Vegas, NV 89118 or may be obtained from the Department website.

7.1 QAA Engaged in the Inspection of Residential Construction

Residential Inspection Categories:

Plumbing – P

Mechanical – M

Electrical – E

Building – B

Structural Framing - SF

7.1.1 The QSM shall be prepared in accordance with Sections 7.1 through 7.11.

7.1.2 Minimum personnel qualifications contained in the QSM shall be in accordance with the BAC and Technical Guideline 17R.

7.1.3 Written procedures shall be established for the inspection, testing, and

reporting of each material and process.

- 7.1.4 Written procedures shall be established for the subcontracting of calibration and testing as allowed in ASTM E 548 and the BAC.
- 7.1.5 Report format and content shall comply with the applicable standards and Section 8.0 below.
- 7.1.6 The QSM shall provide for the internal audit functions and reporting contained in Section 7.8.2 below.
- 7.1.7 The QSM shall provide for an annual review as required in Section 7.11.
- 7.1.8 The QSM shall provide policies and procedures for the residential inspection agency obligations contained in Technical Guideline 16R.
- 7.1.9 QSM shall provide a policy and procedure to satisfy the conflict of interest provisions contained in Technical Guideline 100.

7.2 **Organization of the Agency:**

The following information shall be included in the Quality Systems Manual:

- 7.2.1 Description of the organization including complete legal name and address.
- 7.2.2 Names and positions of the owners, officers, and directors.
- 7.2.3 Agency's managerial structure and principal personnel.
- 7.2.4 All major divisions or departments, including their locations and primary functions, shall be shown and described.
- 7.2.5 All branch offices of the agency, and the principal officers and directors of those offices, shall be included when approval is sought for those offices.
- 7.2.6 External organizations, organizational components and their functions that are utilized for significant supporting technical services, shall also be included.

7.3 **Organization History:**

A brief history of the agency and a general description of the types of users of the organizations services shall be provided.

7.4 **Organization Charts and Functions:**

A functional description of the agency's organizational structure, operational departments, support departments, and services shall be included. This may be demonstrated in the form of charts that depict all divisions, departments, sections, units, and their operational activities. Organizational charts shall define which responsibilities are technical, management or both. Lines of responsibility, authority, and supervisory accountability must be clearly detailed.

7.5 **Technical Services:**

A list of all proposed residential inspection and testing services that the agency may wish to provide shall be included in the manual. Each inspection and/or testing service must be related to specific testing and/or inspection criteria. Procedures and criteria shall be specifically listed in the Quality Systems Manual submitted for initial review and approval.

7.6 **Human Resources of The Agency:**

7.6.1 Lists of inspection services shall also show the names of those inspectors that the organization plans to use in providing those services. All lists shall be accompanied by resumes showing dates of inspector experience, qualifications, accreditations, registrations, or certifications. Detailed approval requirements are contained in Technical Guideline 17R.

7.6.2 In addition to the inspector information previously described, the following information shall be submitted as an attachment to the agency quality systems manual:

7.6.2.1 Written resumes are required for all management and supervisory personnel. Resumes shall detail qualification and work experience pertinent to the services proposed.

7.6.2.2 The Quality Systems Manual shall include a section on minimum position qualifications. Qualifications shall include, but not be limited to, necessary education, training or experience required for each position.

7.6.2.3 The QSM shall include methods of maintaining personnel records to document employee qualifications, work experience, and training history.

7.6.2.4 The QSM shall include methods for ensuring the continued competence of its personnel, including the maintenance of records.

7.6.2.5 The QSM shall have policies and procedures to maintain compliance

to the NRS continuing education requirements for inspection personnel. See TG-17R for additional information.

7.7 Material Resources of the Agency:

An inventory of its relevant material resources shall be made available by the agency including:

- 7.7.1 Testing and inspection equipment, facilities, and calibration standards where applicable. A calibration schedule shall be established and identified as being performed in-house or through a vendor.
- 7.7.2 A library listing of inspection, testing and installation standards shall be maintained at the agency office. The listing shall include the publication title and edition.
- 7.7.3 Copies of the current building codes and standards are required to be in the library.
- 7.7.4 Copies of amendments to the technical codes are required to be in the library.

7.8 Quality Systems of the Agency:

The following information concerning procedural methods that directly affect the quality of proposed services shall be outlined in detail in the quality systems manual.

- 7.8.1 Written Quality Systems Plans shall include calibration programs, standardization of testing methods, data recording, processing, and reporting.
- 7.8.2 Each agency must perform annual in-house office and quarterly on-site internal audits. Records of these audits must be available for review by the Building Official. Example audit forms must be submitted with each Quality System Manual.

7.9 Residential Inspection Plans:

- 7.9.1 Agencies seeking approval must provide within their Quality System Manuals a typical residential inspection plan.
- 7.9.2 QA plans shall detail engineering, inspection and testing procedures, including forms to be used, and acceptance/rejection criteria.
- 7.9.3 Each record or plan must identify project name, location, owner, and contractor.

7.9.4 All quality plans must include the four basic elements below:

7.9.4.1 The plan must show how inspection, engineering and testing activities will be performed such that code requirements of the project can be met.

7.9.4.2 There must be a system of feedback information to be used for the assessment of project compliance.

7.9.4.3 A documented method for corrective action shall exist such that, non-conforming work or materials are brought to a point of acceptability.

7.9.4.4 Plans shall be ongoing in the sense that improvements can be made to the plan as the work proceeds or changes to the scope of work occur.

7.10 **Approval Review:**

An acceptance review of those agencies requesting listing as Residential Inspection Agencies for residential inspection categories may be conducted as follows:

7.10.1 All elements of inspection and/or testing that the agency has the willingness and ability to perform shall be so designated individually in the manual.

7.10.2 Each residential inspector shall have proven experience and appropriate certification(s). Clark County will evaluate each individual inspector's qualifications in accordance with Technical Guideline 17R. Inspection personnel that are new to an agency must be evaluated, approved and listed by Clark County before being assigned to any project.

7.10.3 Equipment used by inspection and/or testing personnel must meet approved national standards.

7.11 **Annual Review Required:**

Agency management shall review their manual on a yearly basis. Any revision required shall be submitted to CCDDS-BD for review and approval prior to implementation. This includes modification to forms that are used to document residential inspection activities. Internal audit findings shall be considered as part of the review process.

8.0 RECORDS:

8.1 All report forms that are planned for use in performing residential inspection, and testing shall be submitted with the Quality Systems Manual for review and approval.

Minimum acceptable guidelines for format shall be as follows:

- 8.1.1 Allow as much lined space on the form as possible.
- 8.1.2 Preprinted titles should be kept to a minimum, e.g., project name, project address, job number, date, report number, permit number, and inspector's name.
- 8.1.3 Limit preprinted headline material that presumes compliance with the approved construction documents.
- 8.1.4 Use the same daily report form format throughout each project.

9.0 ATTACHMENTS:

None.

10.0 REVISION HISTORY:

Title	Revision/Approved Date	Effective Date
TG -15R – 2009	April 3, 2009	April 15, 2009
TG –15R – 2005	October 21, 2005	November 1, 2005